

REMARKS

Upon entry of this Amendment, Claims 3-20, 23-32, 35-40, and 43-133 remain pending, with claims 49-131 withdrawn from consideration as drawn to a nonelected invention. In the Office Action,¹ the Examiner took the following actions;

- (a) stated that the Information Disclosure Statement (IDS) filed on September 27, 2005 failed to comply with 37 CFR § 1.98(a)(3) because it did not include a concise explanation of the relevance ... of each patent listed that is not in the English language;
- (b) stated that if claim 35 is allowed, claims 37 and 43 will be objected to under 37 CFR § 1.75 as being substantial duplicates, and stated that if claim 36 is allowed, claim 44 will be objected to on the same basis;
- (c) rejected claims 35-40, 43-48, and 133 under 35 U.S.C. § 112, first paragraph;
- (d) rejected claims 35-40, 43-48, and 133 under 35 U.S.C. § 112, second paragraph;
- (e) rejected claims 23-25 and 27 under 35 U.S.C. § 102(b) as being anticipated by Ema (U.S. Patent No. 6,372,413);
- (f) rejected claims 23-25 and 27 under 35 U.S.C. § 103(a) as being unpatentable over Kosa (U.S. Patent App. Pub. No. 2001/0018168) in view of Ema;
- (g) rejected claims 35-39, 43-45, and 47 under 35 U.S.C. § 103(a) as being unpatentable over Takahashi (U.S. Patent No. 6,818,387) in view of Ema;
- (h) rejected claim 28 under 35 U.S.C. § 103(a) as being unpatentable over Kosa in view of Ema;
- (i) rejected claims 40 and 48 under 35 U.S.C. § 103(a) as being unpatentable over Takahashi in view of Ema;
- (j) rejected claim 26 under 35 U.S.C. § 103(a) as being unpatentable over Kosa in view of Ema as applied to claim 25 and further in view of Yokoi (U.S. Patent Application Publication No. 2005/0176259);

¹ The Office Action may contain statements characterizing the related art, case law, and claims. Regardless of whether any such statements are specifically identified herein, Applicants decline to automatically subscribe to any statements in the Office Action.

- (k) rejected claims 38 and 46 under 35 U.S.C. § 103(a) as being unpatentable over Takahashi in view of Ema as applied to claims 37 or 45 above and in further view of Yokoi;
- (l) rejected claims 29-32 under 35 U.S.C. § 103(a) as being unpatentable over Kosa in view of Ema as applied to claim 25 and further in view of Ito (U.S. Patent Application Publication No. 2003/0219660); and
- (m) allowed claims 3-20 and 132, and further stated that claim 133 would be allowable if rewritten to overcome the rejections under 35 U.S.C. § 112, first and second paragraphs.

Applicants traverse the objections and rejections for the following reasons.

Regarding the Information Disclosure Statement (IDS):

The Examiner alleged that the IDS “fails to comply with 37 CFR 1.98(a)(3) because it does not include a concise explanation of the relevance ... of each patent listed that is not in the English language” (Final Office Action, page 2). The Examiner noted that “[t]he Japanese Patent Office Action refers to claim numbers and cites page and line numbers of the Japanese patents. This however does not provide the examiner with any information with which to determine the relevance of such references...” Id.

In response, Applicants have filed a Supplemental IDS along with this Amendment and RCE. With the exception of documents JP 10-300428 and JP 2000-269120, the documents listed in the attached Information Disclosure Statement were first cited in the Japanese Patent Office Action, mailed by the Japanese Patent Office on August 16, 2005 in a counterpart Japanese Application, a copy of which was submitted with the IDS filed on September 27, 2005.

Copies of the listed documents were also previously submitted with the IDS filed on September 27, 2005. However, at the Examiner’s requirement, copies of the documents are being resubmitted at this time, together with their English translations which were obtained from the Japanese Patent Office website, with the exception of JP 60-216554, JP 63-287020,

JP 1-179327, and JP 2-315. Only English-language abstracts are being submitted for these documents, because the full English translations are not available on the Japanese Patent Office website. Additionally, the relevance of the listed documents JP 10-300428 and JP 2000-269120 is discussed at page 36 of the specification. English language abstracts of the documents are also enclosed.

This satisfies the requirement of providing “[a] written English language translation of a non-English language document, or portion thereof, if it is within the possession, custody or control of, or is readily available to any individual designated in 37 CFR 1.56(c).” M.P.E.P. § 609.01. Thus, “[o]nce the minimum requirements of 37 CFR 1.97 and 37 CFR 1.98 are met, the examiner has an obligation to consider the information.” M.P.E.P. § 609. Accordingly, Applicants respectfully request that the Examiner consider the cited documents and appropriately initial the relevant portions of the PTO/SB/08 form accompanying the Supplemental IDS.

Claim Objections:

The Examiner has advised that if claim 35 is found allowable, claims 37 and 43 will be objected to under 37 C.F.R. § 1.75 as being a substantial duplicate. The Examiner further advised that if claim 36 is found allowable, claim 44 will also be objected to under 37 C.F.R. § 1.75 as being a substantial duplicate. The Examiner argued that, under M.P.E.P. § 706.03(k), “when two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim” (Final Office Action, page 3).

In response, Applicants have amended claim 37 in part to recite:

slimming a surface layer of the photosensitive resin film by causing the photosensitive resin film to contact with an activated water containing radicals ~~of atoms or molecules produced by irradiating the water with light produced by irradiating the water in which molecules of gas are dissolved, with light~~ (amendments shown).

In addition, Applicants point out that claim 37 is directed to “*slimming* a surface layer,” while claim 43, as amended, is directed to “*reforming* a surface layer.” Thus, the claims are not substantial duplicates, and Applicants accordingly request withdrawal of the objection.

Rejections of Claims 35-40, 43-48, and 133 under 35 U.S.C. § 112, 1st and 2nd ¶¶:

In the 35 U.S.C. § 112, first paragraph, rejection, the Examiner alleged that claims 35-40, 43-48, and 133 “contain[] subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s) ... had possession of the claimed invention” (Final Office Action, page 3). The Examiner also alleged that the specification does not recite or provide examples of providing a slimming process prior to the development and pattern formation steps. In addition, the Examiner rejected claim 133 because she was unable to locate support for producing activated water by “moving the light along with the water” (Final Office Action, page 4).

In the 35 U.S.C. § 112, second paragraph, rejection, the Examiner rejected claims 35-40, 43-48, and 133 as being indefinite. This rejection was made for substantially the same reasons as the rejection under 35 U.S.C. § 112, first paragraph. Specifically, the Examiner rejected claims 35-40 and 43-48 because it was allegedly “unclear what is meant by “slimming” a surface layer of the photosensitive resin, as recited in claims 35, 37, 43 and 45. In addition, the Examiner rejected claim 133 because “[t]his is unclear as there is no previous mention of the water being moved” (Final Office Action, page 5).

Regarding independent claims 35, 37, 43, and 45, the Examiner specifically alleged that “these claims [35, 37, 43, and 45] previously recited that the photosensitive resin was reformed (not slimmed) and the examiner has been unable to locate any support for this amendment in the original specification.” (Final Office Action, pages 3-4). In response, Applicants point out that the use of the word “slimming” in independent claims 35 and 37 finds support in claim 1 of the originally-filed application, for example. In addition, Applicants have amended claims 43 and 45 to replace “slimming” with “reforming.”

Regarding claim 133, the Examiner stated that she was unable to locate support for producing activated water by “moving the light along with the water” (Final Office Action, page 4). The Examiner requested that Applicants specifically identify support for this claim. In response, Applicants have amended claim 133 to recite “...moving the light along ~~with~~ the water,” for which there is ample support in the specification. Claim 133 finds support in the specification at, for example, page 4, lines 5-7, which discusses “a moving mechanism which moves relatively the liquid supply section, light emitting section and substrate holding mechanism horizontally.” Support may also be found at, for example, page 32, lines 14-17, which states that “the light emitting section may be scanned while forming a liquid film of pure water on the wafer by scanning the liquid supply nozzle for supplying pure water on the wafer.” Additional support may also be found at, for example, page 34, line 27 to page 36, line 3, which describes a particular example of the second embodiment whereby water is emitted from the liquid supply nozzle to form a thin film on the wafer, irradiated with light, and then collected by the liquid suction nozzle.

In view of the foregoing, Applicants respectfully request withdrawal of the rejections of claims 35-40, 43-48, and 133 under 35 U.S.C. § 112, first and second paragraphs.

Rejection of Claims 23-25 and 27 under 35 U.S.C. § 102(b):

Applicants traverse the rejection of claims 23-25 and 27 under 35 U.S.C. § 102(b) as being anticipated by Ema. Applicants respectfully disagree with the Examiner's arguments and conclusions.

In order to properly establish anticipation under 35 U.S.C. § 102, the Federal Circuit has held that "[a] claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). Furthermore, "[t]he identical invention must be shown in as complete detail as is contained in the ... claim." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1126, 1236, 9 U.S.P.Q.2d 1913, 1920 (Fed. Cir. 1989). *See also* M.P.E.P. § 2131.

Ema does not disclose each and every element of claims 23-25 and 27. Ema teaches the use of ozone water in a rinsing process. *See Ema*, Abstract, generally. After developing the resist, Ema discloses spinning the wafer disc to remove the partially dissolved resist residues. Ema then discloses a first rinsing process using ozone water to oxidize and further decompose the resist residue, followed by a second rinsing process using hydrogen water to remove the remaining defects. *See Ema*, col. 3, lines 20-62.

In response to the previous Office Action, Applicants stated that Ema does not disclose the claimed "removing the surface layer of the pattern" (claims 23 and 25) or changing the size of a pattern. *See* February 28, 2006 Amendment, page 27. The Examiner was not persuaded, and now alleges that Ema "teaches developing the resist, meeting this claim limitation." Final Office Action, page 5. The Examiner further argues that "[c]laims 23 and 25 do not recite slimming or changing the size of pattern as argued." Id.

Applicants also point out that Ema does not disclose the claimed “reforming a surface layer of a pattern of the photosensitive resin film by causing the pattern to contact with an activated water” (claim 23) and “reforming a surface layer of a pattern by causing the pattern to contact with an activated water” (claim 25). It appears that the Examiner has not fully considered the claimed “reforming” step in claims 23 and 25.

An exemplary embodiment illustrating Applicants’ claimed reforming process is shown in Figs. 27A-27C, and this is distinguishable from the rinsing process found in Ema’s Figs. 1A-1G. Whereas Ema discloses the use of ozone water to further decompose and remove resist residue, Applicants instead teach the use of ozone water to reform the resist pattern, allowing for later slimming or reduction in the size of the resist pattern. Therefore, the claimed “reforming a surface layer of a pattern,” according to claims 23 and 25 is patentably distinct from Ema. For example, ozone water may be used to oxidize the resist pattern before either a first or second developing process, and not simply as a rinse to remove waste material. *See* Applicants’ specification at, for example, page 45, lines 13-21. Applicants submit that this reasoning clearly distinguishes the claimed process over Ema.

Therefore, Ema does not anticipate independent claims 23 and 25. Independent claims 23 and 25 are therefore allowable, and dependent claims 24 and 27 are also allowable at least by virtue of their respective dependence from base claim 23 or 25. The 35 U.S.C. § 102(b) rejection is therefore improper and should be withdrawn.

Rejection of Claims 23-25 and 27 under 35 U.S.C. § 103(a):

Applicants request reconsideration and withdrawal of the rejection of claims 23-25 and 27 under 35 U.S.C. § 103(a) as being unpatentable over Kosa in view of Ema. Applicants respectfully disagree with the Examiner’s arguments and conclusions. As M.P.E.P. § 2142

states, “[t]he examiner bears the initial burden of factually supporting any *prima facie* conclusion of obviousness.”

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant’s disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). M.P.E.P. § 2142, 8th Ed., Rev. 4 (October 2005), p. 2100-134.

Each of these requirements must “be found in the prior art, and not be based on applicant’s disclosure.” M.P.E.P. § 2143. A requirement for establishing a *prima facie* case of obviousness is not met, because Kosa and Ema, taken alone or in combination, do not teach or suggest every feature of Applicants’ claims.

The Examiner characterized Kosa as follows:

Resist 11 is applied to the wafer substrate 10, exposed in a pattern and developed. A resist mixture 14 containing dissolved resist 13 and alkaline developer 15 remains. Ozone water 16 is dropped on the resist 11 to wash away the resist mixture 14 (reforming). See [0022]-[0023], [0032]. Final Office Action, page 6.

The Examiner admitted that “Kosa does not disclose irradiating the ozone water with light” (Id.), but applied Ema to allegedly cure this deficiency. Kosa, however, teaches the use of ozone water to wash out a resist mixture consisting of dissolved resist and left-over alkaline developer. Like Ema, Kosa uses the ozone water as a wash or rinse, not as a pre-treatment to oxidize the resist pattern prior to a first development or between multiple development steps.

Applicants have previously established that Ema does not teach or suggest all the elements of independent claims 23 and 25. The Examiner’s application of Kosa, however,

fails to cure the deficiencies of Ema already discussed. That is, Kosa also does not teach or suggest at least Applicants' claimed "reforming a surface layer of a pattern of the photosensitive resin film by causing the pattern to contact with an activated water" (claim 23) and "reforming a surface layer of a pattern by causing the pattern to contact with an activated water" (claim 25).

Even if Kosa were combined with Ema as the Examiner suggests, Ema and Kosa do not teach or suggest all elements recited in independent claims 23 and 25, and required by dependent claims 24 and 27. Because neither Ema, Kosa, nor their combination, teach each and every step in the claimed process of independent claims 23 and 25, Applicants submit that this rejection is improper at least on the basis of the Examiner's admitted deficiency in Kosa coupled with the reasoning presented in the previous section against the 35 U.S.C. § 102(b) rejection over Ema. Therefore, the Examiner's citation of Ema and Kosa does not establish *prima facie* obviousness of any of claims 23-25 and 27. For at least these reasons, the Examiner's rejection is improper and should be withdrawn.

Rejection of Claims 35-39, 43-45, and 47 under 35 U.S.C. § 103(a):

The Examiner rejected claims 35-39, 43-45, and 47 as being unpatentable over Takahashi in view of Ema. Applicants request reconsideration and withdrawal of this rejection, and submit that this rejection is moot, for the reasons presented below.

Takahashi teaches the use of "an aqueous solution of ozone" as a "pretreatment" to slightly oxidize the surface of the resist prior to using a developing solution. (Takahashi, col. 5, lines 45-64). The Examiner admitted that "Takahashi does not disclose irradiating the ozone water with light" (Final Office Action, page 7), but applied Ema to allegedly cure that deficiency.

The Takahashi reference has two common inventors with the present application: Kei Hayasaki and Shinichi Ito. The Examiner stated that “[b]ased upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. [§] 102(e)” (Final Office Action, page 6).

With respect to the rejection under 35 U.S.C. § 103(a) based on Takahashi (U.S. Patent No. 6,818,387), Applicants can eliminate Takahashi as prior art by meeting the requirements of 35 U.S.C. § 103(c). Takahashi has a U.S. filing date of February 15, 2002, and a publication date of October 24, 2002. The present application was filed in the U.S. on July 23, 2003. Although Messrs. Kei Hayasaki and Shinichi Ito are inventors in both Takahashi and the present application, Messrs. Tomoyuki Takeishi, Jenji Kawano, and Tatsuhiko Ema are also named inventors in the present application. Thus, Takahashi is issued to “another” and qualifies as prior art only under 35 U.S.C. § 102(e). When such prior art is applied in a rejection under 35 U.S.C. § 103(a), the prior art can be removed under 35 U.S.C. § 103(c), if the subject matter disclosed in the reference and the subject matter of Applicants’ invention were commonly assigned at the time Applicants’ invention was made. In particular, 35 U.S.C. § 103(c) states:

Subject matter developed by another person, which qualifies as prior art only under one or more of subsections (e), (f), and (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person.

As noted above, Takahashi can only constitute prior art, if at all, under 35 U.S.C. § 102(e). Thus, applying 35 U.S.C. § 103(c), Takahashi can be removed as prior art in the rejections of claims 35-39, 43-45, and 47 under 35 U.S.C. § 103(a) over Takahashi, if the subject matter of claims 35-39, 43-45, and 47 in the present application and the Takahashi patent were

commonly assigned at the time Applicants' invention was made. Takahashi is (and at all relevant times was) assigned to Kabushiki Kaisha Toshiba ("Toshiba") and the present application is also assigned to Toshiba. Thus, common ownership can be established to satisfy the requirements of 35 U.S.C. § 103(c).

Accordingly, 35 U.S.C. § 103(c) operates to remove Takahashi as prior art to the present application, rendering moot the rejection of claims 35-39, 43-45, and 47 under 35 U.S.C. § 103(a) over the combination of Takahashi and Ema.

Rejection of Claim 28 under 35 U.S.C. § 103(a):

The Examiner rejected claim 28 as being unpatentable over Kosa in view of Ema. Applicants request reconsideration and withdrawal of this rejection, for the reasons that follow.

Applicants note that the Examiner did not provide any basis or explanation for this rejection, and thus has not met her burden to establish a *prima facie* case of obviousness. Applicants assume that the Examiner's arguments are the same as those in the rejection of claims 40 and 48 (described below). Applicants further note that claim 28 is dependent from claim 25, and that claim 25 is allowable over Kosa and Ema. Therefore, claim 28 should also be allowable.

Therefore, the Examiner's citation of Ema and Kosa does not establish *prima facie* obviousness of claim 28. For at least these reasons, the Examiner's rejection is improper and should be withdrawn.

Rejection of Claims 40 and 48 under 35 U.S.C. § 103(a):

The Examiner rejected claims 40 and 48 as being unpatentable over Takahashi in view of Ema. Applicants request reconsideration and withdrawal of this rejection, for the reasons that follow.

The Examiner argued that the references teach using ozone water as the activated water, but admitted that the references do not disclose the amount of the pattern surface to be removed or oxidized and do not specify that this is 5 nm or more. *See* Final Office Action, page 8. Applicants again point out, subject to the application of 35 U.S.C. § 103(c) discussed previously, that Takahashi is not available as prior art under 35 U.S.C. § 103(a).

Applicants also note that claim 40 is dependent from claim 35, and that claim 48 is dependent from claim 43. Independent claims 35 and 43 are allowable for the reasons already discussed above, and therefore dependent claims 40 and 48 are also allowable at least by virtue of their respective dependence from base claim 35 or 43. Therefore, the Examiner's citation of Ema and Takahashi does not establish *prima facie* obviousness of claims 40 and 48. For at least these reasons, the Examiner's rejection is improper and should be withdrawn.

Rejection of Claim 26 under 35 U.S.C. § 103(a):

The Examiner rejected claim 26 as being unpatentable over Kosa in view of Ema as applied to claim 25, and further in view of Yokoi. Applicants request reconsideration and withdrawal of this rejection, and submit that this rejection is moot, for the reasons presented below.

Initially, Applicants note that the Examiner did not provide a specific basis or explanation for this rejection, however, it appears that her arguments are the same as those used in the rejection of claims 38 and 46 (described below). Claim 26 is dependent from claim 25, and Applicants submit that claim 25 is allowable, for the reasons already discussed.

Moreover, Kosa, Ema, and Yokoi all teach the use of ozone water as part of a washing or cleaning or decomposing process, but do not teach the use of ozone water in a reforming, oxidizing, or pretreatment process. Yokoi is cited by the Examiner to teach dissolving the

photoresist using either ozone water or an aqueous hydrogen peroxide. See Yokoi, par. [0034]-[0035]. Yokoi does not teach or suggest the claimed “reforming” of independent claim 25.

Applicants also note that Yokoi does not qualify as prior art. As M.P.E.P. § 2136.03(II) sets forth, regarding critical reference dates for international (PCT) applications,

[i]f the international application was filed on or after November 29, 2000, [and] was **not** published in English under PCT Article 21(2), do **not** treat the international filing date as a U.S. filing date. In this situation, do **not** apply the reference as of its international filing date, its date of completion of the 35 U.S.C. 371(c)(1), (2) and (4) requirements, or any earlier filing date to which such an international application claims benefit or priority. The reference may be applied under 35 U.S.C. 102(a) or (b) as of its publication date, or 35 U.S.C. 102(e) as of any later U.S. filing date of an application that properly claimed the benefit of the international application (if applicable). (emphasis in original)

Yokoi was filed as a PCT application on April 25, 2003. Online research on the USPTO-PAIR and WIPO databases indicates that the PCT application from which Yokoi claims priority was filed and published in the Japanese language. Therefore, the relevant prior art date for the Yokoi reference is the U.S. publication date of August 11, 2005. Thus, Applicants’ earlier U.S. filing date of July 23, 2003 disqualifies Yokoi as prior art. Even if Yokoi could be considered prior art by the PCT filing date, Applicants additionally note that the current application claims priority to Japanese Patent App. No. 2002-215446, filed July 24, 2002, and Japanese Patent App. No. 2003-162020, filed June 6, 2003. The priority claim to Japanese Patent App. No. 2002-215446, filed July 24, 2002, also antedates Yokoi’s PCT filing date of April 25, 2003.

Accordingly, under M.P.E.P. § 2136.03(II), Yokoi does not qualify as prior art to the present application, rendering moot the rejection of claim 26 under 35 U.S.C. § 103(a) over the combination of Kosa, Ema, and Yokoi.

Rejection of Claims 38 and 46 under 35 U.S.C. § 103(a):

The Examiner rejected claims 38 and 46 as being unpatentable over Takahashi in view of Ema as applied to claims 37 or 45 and further in view of Yokoi. Applicants request reconsideration and withdrawal of this rejection, and submit that this rejection is moot, for the reasons presented below.

Claims 38 and 46 are dependent from claims 37 and 45, respectively. Claims 37 and 45, however, are allowable for the reasons already discussed. Further, Yokoi, taken alone or in combination with Takahashi and Ema, does not teach the claimed “reforming.”

Finally, Applicants submit that Takahashi and Yokoi are not available as prior art to support this rejection, for the reasons already discussed. Therefore, this renders moot the rejection of claims 38 and 46 under 35 U.S.C. § 103(a) over the combination of Takahashi, Ema, and Yokoi.

Rejection of Claims 29-32 under 35 U.S.C. § 103(a):

The Examiner rejected claims 29-32 as being unpatentable over Kosa in view of Ema as applied to claim 25 and further in view of Ito. Applicants request reconsideration and withdrawal of this rejection, and submit that this rejection is moot, for the reasons presented below.

Initially, Applicants note that claims 29-32 depend from claim 23. Claim 23 is allowable for the reasons already discussed. Therefore, claims 29-32 are allowable at least by virtue of their dependence from base claim 23.

Moreover, the Examiner admitted that Kosa and Ema “do not disclose measuring the pattern dimension by emitting light” (Final Office Action, page 9). The Examiner argues, however, that “Ito teaches a method capable of performing CD slimming with a sufficient

tolerance and capable of forming a pattern with a line width of 70 nm or less.” Id. Ito teaches a process of slimming that uses a light probe and optical apparatus to measure the size of a resist pattern to be slimmed. *See Ito*, paragraphs [0008]-[0011], [0030]-[0041], and [0088]. The Examiner admitted that Ito “does not explicitly disclose repeating the measurement and reforming process,” but argued that “it would have been obvious to one of ordinary skill in the art that the process would be repeated until the desired resist pattern was achieved” (Final Office Action, p. 9).

First, Ito does qualify as prior art. As set forth in M.P.E.P. § 2136.03, a reference is only effective as prior art on its earliest effective U.S. filing date. That is,

Foreign applications’ filing dates that are claimed (via 35 U.S.C. 119(a) - (d), (f) or 365(a)) in applications, which have been published as U.S. or WIPO application publications or patented in the U.S., may not be used as 35 U.S.C. 102(e) dates for prior art purposes. [...] Therefore, the foreign priority date of the reference under 35 U.S.C. 119(a)-(d) (f), and 365(a) cannot be used to antedate the application filing date. In contrast, applicant may be able to overcome the 35 U.S.C. 102(e) rejection by proving he or she is entitled to his or her own 35 U.S.C. 119 priority date which is earlier than the reference's U.S. filing date. M.P.E.P. § 2136.03, emphasis added.

Although the above-quoted section of the M.P.E.P. refers to 35 U.S.C. § 102(e), prior art that is available under 35 U.S.C. § 102 is available under 35 U.S.C. § 103. This is because “Subject matter that is prior art under 35 U.S.C. 102 can be used to support a rejection under section 103. [...] A 35 U.S.C. 103 rejection is based on 35 U.S.C. 102(a), 102(b), 102(e), etc. depending on the type of prior art reference used and its publication or issue date.” M.P.E.P. § 2141.01.

In this case, Applicants’ earliest foreign priority filing date of July 24, 2002 (JP 2002-215446), predates Ito’s earliest U.S. filing date of April 11, 2003. Therefore, Ito is not available

as a prior art reference. Accordingly, Ito does not qualify as prior art to the present application, rendering moot the rejection of claims 29-32 under 35 U.S.C. § 103(a) over the combination of Kosa, Ema, and Ito.

Second, even if Ito were available as prior art, which it is not, Applicants note that Ito is not applicable to claim 29. Claim 29 recites a pattern forming method comprising one or more repetitions of a reforming process using activated water. Claim 29 does not recite a measuring process as described in Ito. Thus, the Examiner's rejection of claim 29 is either in error, or based entirely upon the Kosa and Ema references. As described previously, however, neither Kosa nor Ema teach the use of activated water in a reforming process. Furthermore, even if Ito were properly applied, Ito teaches the use of a light probe and measurement purely for correction in a slimming process to correct errors or abnormalities, and not as part of pattern reforming. *See Ito*, paragraph [0075]-[0076], and [0107]-[0108]. Consequently, the rejection of claim 29 over these references is improper and should be withdrawn. Furthermore, the rejection of claims 30-32 should be withdrawn as well, since the cited references do not teach each and every element of the claimed invention.

Therefore, the Examiner's citation of Kosa, Ema, and Ito does not establish *prima facie* obviousness of claims 29-32. For at least these reasons, the Examiner's rejection is improper and should be withdrawn.

Allowed Claims:

Applicants acknowledge with appreciation the Examiner's indication that claims 3-20 and 132 are allowed. Applicants also acknowledge the Examiner's indication that claim 133 is drawn to allowable subject matter, if rewritten to overcome the rejection under 35 U.S.C. § 112,

first and second paragraphs. Applicants have amended claim 133 to overcome these rejections, as discussed herein, and respectfully request that claim 133 be allowed.

Conclusion:

In view of the foregoing, Applicants request reconsideration of the application and withdrawal of the rejections. Pending claims 3-20, 23-32, 35-40, 43-48, 132, and 133 are in condition for allowance, and Applicants request a favorable action.

If there are any remaining issues or misunderstandings, Applicants request the Examiner telephone the undersigned representative to discuss them.

Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account 06-0916.

Respectfully submitted,

FINNEGAN, HENDERSON, FARABOW,
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Dated: August 18, 2006

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